Hoeffler et al.

Application Serial No.: 09/245,615

Filed: February 4, 1999

Page 2

I. AMENDMENTS

Please amend claims 31, 32, 54, 60, and 63 as indicated below. Please add claims 66-73. Upon entry of the present amendment, the status of the claims will be as follows:

PATENT

Attorney Docket No.: INVI1100-1

1 to 30. (Cancelled)

- 31. (Currently amended) A kit comprising:
- (a) a microarray comprising a plurality of uncharacterized antibodies located at discrete locations on a solid surface; and
 - (b) instructions for using the microarray a first reagent for labeling a cell lysate.
- 32. (Currently amended) A kit according to claim 31 wherein the <u>further comprising</u> instructions are for <u>identifying antibodies to a specific antigen</u>, comparing protein expression in two or more populations of cells[[,]] <u>or</u> characterizing a cell based on the pattern of protein expression produced thereby, or <u>determining the effect of varying binding conditions on the binding affinity of the antibodies</u>.
- 33. (Original) A kit according to claim 31 wherein the antibodies are monoclonal antibodies, polyclonal antibodies or antibody fragments.
- 34. (Original) A kit according to claim 33 wherein the antibody fragments are single chain antibodies.
- 35. (Original) A kit according to claim 31 wherein the antibodies are recombinant antibodies.

Hoeffler et al.

Attorney Docket No.: INVI1100-1

PATENT

Application Serial No.: 09/245,615

Filed: February 4, 1999

Page 3

36. (Original) A kit according to claim 31 further comprising reagents for detecting an antigen and instructions for use thereof.

- 37. (Previously presented) A microarray comprising a plurality of uncharacterized antibodies located at discrete locations on a solid surface, wherein the antigen specificity of the plurality of antibodies is unknown.
 - 38. (Cancelled).
- 39. (Previously presented) The microarray according to claim 37 wherein the antibodies are recombinant antibodies.
- 40. (Previously presented) The microarray according to claim 37 wherein the antibodies are single chain antibodies.

Claims 41 to 50 (Cancelled)

- 51. (Previously Presented) The kit according to claim 31 wherein the source of the antibodies at each discrete location is known.
- 52. (Previously presented) The kit according to claim 31, said microarray having the locations of the antibodies arranged in an ordered matrix that is spatially addressable.
 - 53. (Cancelled).
- 54. (Currently amended) The kit according to claim 31 wherein the space between the discrete locations is treated to minimize non-specific binding to the solid support surface.

Hoeffler et al.

Application Serial No.: 09/245,615

Filed: February 4, 1999

Page 4

PATENT Attorney Docket No.: INVII100-1

- 55. (Previously presented) The microarray according to claim 37 wherein the source of the antibodies at each discrete location is known.
- 56. (Previously presented) The microarray according to claim 37, said microarray having the locations of the antibodies arranged in an ordered matrix that is spatially addressable.
 - 57. (Cancelled).
- 58. (Previously presented) The microarray according to claim 37 wherein the space between the discrete locations is treated to minimize non-specific binding to the solid support.
- 59. (Previously presented) The microarray according to claim 37 wherein the antibodies are monoclonal antibodies, polyclonal antibodies or antibody fragments.
- 60. (Currently amended) The kit according to claim 31, wherein between 0.01 nanoliters and 100 nanoliters of the antibodies is are spotted at each discrete location on the solid surface.
- 61. (Previously presented) The kit according to claim 31, wherein the microarray comprises 600 discrete locations per square centimeter.
- 62. (Previously presented) The kit according to claim 51, wherein the source of the antibodies is a known hybridoma cell line.

Hoeffler et al.

Application Serial No.: 09/245,615

Filed: February 4, 1999

Page 5

63. (Currently amended) The microarray according to claim 37, wherein between 0.01 nanoliters and 100 nanoliters of the antibodies is are spotted at each discrete location on the solid surface.

PATENT

Attorney Docket No.: INVI1100-1

- 64. (Previously presented) The microarray according to claim 37, which comprises 600 discrete locations per square centimeter.
- 65. (Previously presented) The microarray according to claim 55, wherein the source of the antibodies is a known hybridoma cell line.
- 66. (New) The kit according to claim 31, wherein the plurality of antibodies recognize mammalian proteins.
- 67. (New) The kit according to claim 31, further comprising a second reagent for labeling a cell lysate.
- 68. (New) The kit according to claim 67, wherein the first reagent comprises a first detectable label and the second reagent comprises a second detectable label.
- 69. (New) The kit according to claim 31, further comprising a second microarray comprising a plurality of antibodies located at discrete locations on a second solid surface.
- 70. (New) A microarray comprising a plurality of antibodies located at discrete locations on a solid surface, wherein the antibodies recognize proteins of a first species.
- 71. (New) The microarray according to claim 70, wherein the plurality of antibodies recognize mammalian proteins.

In the Application of Hoeffler et al.

Application Serial No.: 09/245,615

Filed: February 4, 1999

Page 6

PATENT Attorney Docket No.: INVII100-1

- 72. (New) The microarray according to claim 70, wherein between 0.01 nanoliters and 100 nanoliters of the antibodies are spotted at each discrete location on the solid surface.
- 73. (New) The microarray according to claim 70, wherein the microarray comprises 600 discrete locations per square centimeter.